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TO: CODE ADMINISTRATION CUSTOMERS AND STAFF

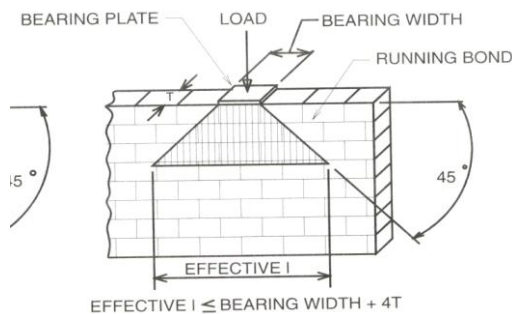
FROM: JOHN CATLETT, DIRECTOR

SUBJECT: SHIM USE ON MASONRY PIERS

This policy is intended to clarify the appropriate way to shim gaps between an interior girder/beam and a masonry pier.

All girders shall have full contact on top surfaces of masonry piers unless performed under the guidance of Virginia licensed Registered Design Professional. Gaps of 1 ½" or more may be shimmed with the same material as used to construct the girder/beam. Gaps of less than 1 ½" must be shimmed with hardwood material or steel plates. "Door stop" or wedge style shims are not acceptable.

Masonry piers distribute loads by utilizing the effective area of the masonry block (see figure below). Softwood materials are acceptable for load-bearing transfer when placed in a nominal dimension, but if cut to less than nominal thickness it can compress and/or break. "Door stop" or wedge style shims do not provide adequate bearing width for load transfer. The narrow end is subject to compression and the shim does not provide full contact unless the girder "list" or slants to the narrow side. Material other than those listed above can be utilized if the Department of Code Administration is provided with engineering calculations for an alternate method in compliance with the Virginia Construction Code.



Effective Loading



"Wedge" style shim, girder "list", improper bearing of girder, failure to contact bearing point.

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